

The Walter Nurnberg photograph collection at the National Museum of Photography, Film & Television, Bradford

The UK's National Museum of Science & Industry has acquired a substantial collection of photographs by the industrial photographer Walter Nurnberg. The photographs will now form part of the collections of the National Museum of Photography, Film & Television in Bradford, and would appear to be a particularly appropriate and important addition to these collections. Nurnberg was active as a freelance photographer specialising in industrial photography from 1945 to the 1970s and his distinctive style led him to become known as the founding father of modern British industrial photography. The material, kindly donated by his family, includes hundreds of images, both black and white and colour. Potentially the most interesting records for historians are the monochrome views taken in the 1940s and 1950s, a period when Britain was rebuilding its industry and infrastructure after war and anxious to show the world that it was back in business with a vibrant industrial economy.

Leaving aside any discussion about the technical merit or aesthetic quality of the photographs, what value do these pictures of men and machines have as a historical record? An early claim to photography as a historical source was put forward by Elizabeth Lady Eastlake. In an 1857 essay she suggested that the basis of all photography was fact and went on to argue: 'In this sense no photographic picture that ever was taken, in heaven, or earth, or in the waters underneath the earth, of any thing, or scene however defective when measured by an artistic scale, is destitute of a special, and what we may call an historic interest.'¹ Queen Victoria's last prime minister, the third Marquess of Salisbury, had a more extreme view. He admired photography because it was 'never imaginative, and it is never in any danger of arranging its records by the light of any preconceived theory.'² This might be described as coming from the 'camera does not lie' school. Salisbury, the imperialist statesman, was one of Britain's last great aristocratic polymaths. He was a scholar and amateur scientist of some distinction, but this was a naive opinion and he should have known better. Lady Eastlake's view is more defensible, but even in the nineteenth century there were several photographers who produced imaginative images

that bore little relation to any reality. Modern historians have learned, sometimes belatedly, that the camera can be made to lie, and certainly select and distort. As a consequence, many remain wary of the photographic image as a source. Which brings us back to Nurnberg's images. What is their historical value? Do they misrepresent or lie? The answer is, of course, to apply the traditional historian's skills. Consider the man, his period and the prevailing social and political conditions. Look for influences, question motives and explore possible bias. In the case of photography, take into account the available technology. Nurnberg lends himself particularly well to such an approach, for he not only left us hundreds of images but also, as the author of several books and numerous articles, thousands of words.

It can be said at the outset that Nurnberg's life and work was shaped by some of the most tumultuous events in European history. Born in Berlin in 1907, he grew up in a Germany traumatised by the First World War and its consequences. However, from 1925 to 1929 the German economy, boosted by massive American loans, grew rapidly and began to return to some of its prewar prosperity. It was in this climate that Nurnberg began training as a banker, although he was deeply interested in the arts and had considered a career in music. This was also a period of renaissance for German artistic endeavour and for a brief time Berlin was the European hothouse of radical thought. The Bauhaus, a school of design and architecture, was particularly prominent and encouraged wide-ranging experiments with film and photography. One of its tutors, the artist, film-maker and stage designer Laszlo Moholy Nagy, influenced the perceptions and practice of photography far beyond Europe. Also influential was a commercial photographer, Albert Renger-Patzsch, whose 1928 book *Die Welt ist Schön (The World is Beautiful)* celebrated the structural beauty inherent in apparently mundane manufactured artefacts and industrial buildings and machinery. Renger-Patzsch was a leading figure in the 'Neue Sachlichkeit' ('new objectivity') movement in German photography, an important part of the wider German outlook that reflected what was seen as the new spirit of the Weimer Republic. Nurnberg's serious interest in photography began when he visited the Reimann School of Art in Berlin as a management consultant and happened to see a class led by a former Bauhaus student, Werner Graeff. He was so inspired by what he saw and heard that he gave up his financial career and enrolled in the school to study with Graeff. A feature of 'new objectivity' photography was the use of cinematographic lighting techniques. Photographers at the Bauhaus and the Reimann School were quick to exploit the potential of this powerful new artificial lighting.³ A prominent exponent was Helmar Lerski, whose style was to have a profound influence on Nurnberg.

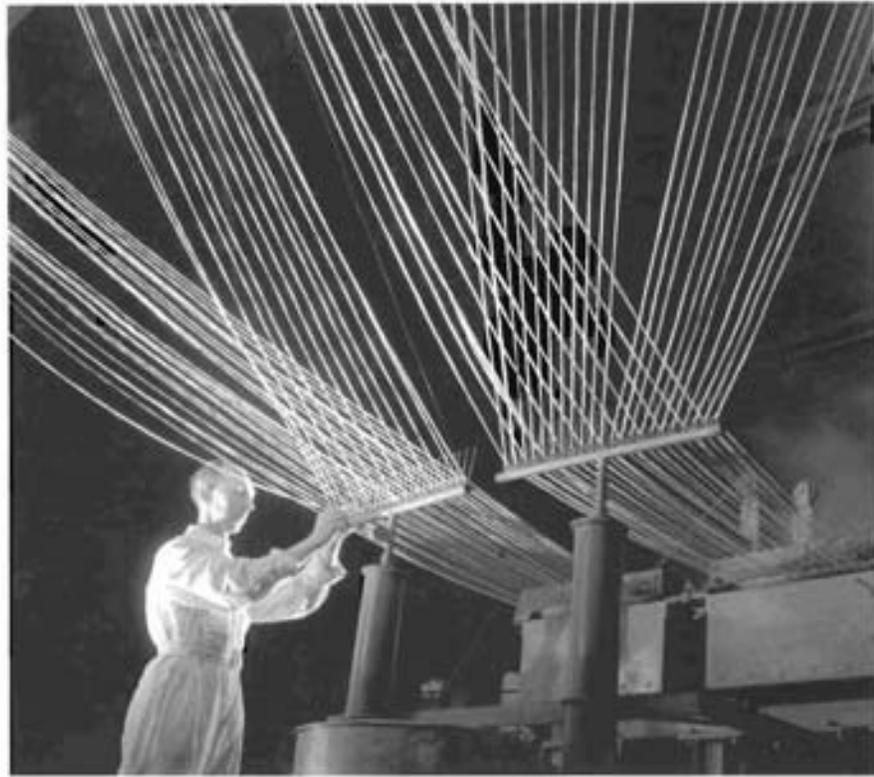
Nurnberg's new career was rudely interrupted in 1933 when Hitler became Chancellor. The period of Jewish persecution and cultural



repression that followed soon forced him to leave Germany. He moved to England, where in 1934 he used his photographic skills to establish a successful advertising practice in London. During the Second World War, he served with the Pioneer Corps in the British Army. When peace came, Nurnberg found returning to the world of advertising photography a distasteful prospect. Influenced by his photographic heritage and the prevailing mood of the times, he became increasingly interested in the changing industrial scene presided over by the new Labour government. In the immediate postwar period the British economy was in a parlous state, although the condition of its industries was not completely without promise. Some did well in the war and thrived in the immediate aftermath, albeit in the context of protected markets. Although there remained many problems, there was a great deal of optimism; indeed, for the next 20 years parts of British industry were to enjoy what has been described as a golden age. There was also a new spirit in the British people. They had been engaged in a desperate struggle for survival and had won through. They could now build a new world, the 'New Jerusalem'.⁴ In this climate, Nurnberg's interest in industry, machines and the people working with them deepened. As he later explained: 'The craft age was coming to an end. The whole relationship of people to work [...] to their own families was being reshaped [...]. I felt I really stood on the threshold of great

Figure 1 Worker with great pipes in the ICI powerhouse, Billingham, 1955. The modern British chemical industry had been created during the First World War and was transformed by government investment in the Second World War. The chemical company ICI emerged from war as one of the giants of new industrial Britain with vast showcase plants at Billingham and Wilton on Teesside. (Walter Nurnberg collection/ National Museum of Photography, Film & Television/Science & Society Picture Library)

Figure 2 Terylene process worker with thread pattern, ICI, 1955. Terylene was the first wholly synthetic fibre to be invented in Britain. It was launched in 1955 and quickly became a popular alternative to wool and cotton fabric. The main plant for manufacture was ICI's enormous new chemical complex at Wilton on Teesside. (Walter Nurnberg collection/ National Museum of Photography, Film & Television/Science & Society Picture Library)



events.⁷⁵ He decided to concentrate on industrial photography and soon began to earn a reputation. The list of companies commissioning his work during the years that followed reads like a contemporary roll call of the giants of British industry and included ICI (Figures 1 and 2), Mullards (Figure 3), British Steel, Alcan Aluminium and English Electric (Figure 4).

In a 1950s draft of an article probably intended for publication, Nurnberg asked 'What, then, is Industrial Photography?' and went on to answer his own question by dividing it into four groups:

1. Reproductive photography of plant and buildings in a long shot technique.
2. Reproductive photography of machinery (not including operator).
3. Progress photography of industrial plant erection.
4. Documentary photography of working processes and the imaginative portrayal, of industry and its men.

The first three groups he dismissed summarily as 'Record Photography' which did not require creative ability. But he went on to deal with the fourth group, which he described as 'the portrayal of industrial life in general and to the dynamic story telling in general.



Figure 3 Female employees assembling cathode ray guns, Mullards, 1956.

The growth of light engineering and the new electrical and electronic industries greatly accelerated the scope for industrial employment of women during the war, a trend that continued in postwar Britain. Women were widely employed for assembly work and increasingly for technical and management roles. (Walter Nurnberg collection/National Museum of Photography, Film & Television/ Science & Society Picture Library)

With this type of photography the client is no longer interested to show merely an arid reproduction of floor space and machinery. Instead he looks for a vivid and visual expression of the many skills which stand behind the making of his products. He expects his photographer to give him a coherent and eloquent story of working methods, indeed a forceful epitome of industrial endeavour.⁶ Nurnberg's description of his last group is a revealing insight into the way he approached his work. Even in his first three groups, which Nurnberg suggests could be 'arid reproductions' and 'not requiring creative ability', caution in interpretation is essential. He undertook this apparently mundane work in a way that many would describe as creative. He later wrote of 'the inherent beauty of industrial processes, the excitement of moving machinery and the allure of forms and textures'. Perceptively, he recognised that appreciation of a photographic image was subjective, but concluded: 'Whichever way we look at it, there is certainly an allure in things.'⁷

Nurnberg always made the first inspection of his site without a camera. In modern management speak, 'he walked the job'. He was careful to talk to people at all levels, to collect factual information, to absorb the mood and atmosphere and to picture in his own mind the effect he wanted to produce. He planned his photography with

Figure 4 Shaping a ceramic insulator, English Electric, 1961. With competition increasing as trade rivals recovered from wartime disruption, some of Britain's biggest companies felt the need to indulge in what was called 'prestige advertising' to encourage customers and inspire workers. One such company was English Electric. It is easy to see this characteristic Nurnberg image as part of such an exercise. (Walter Nurnberg collection/National Museum of Photography, Film & Television/Science & Society Picture Library)



meticulous care, calculating in advance the impact of each individual shot and the cumulative effect of a sequence of images. For most of his straight record shots Nurnberg used a traditional tripod-mounted field or technical camera, equipped with the usual camera movements and adapted to take a selection of lenses. This instrument gave him large negatives, which required little or no further enlargement and were never retouched. For his 'dynamic story telling', however, he favoured a hand-held Rolleiflex camera, which allowed him to crawl into nooks and crannies and photograph from different angles. The Rolleiflex was a twin-lens reflex camera, a well-made compact instrument much loved by contemporary press photographers. In the days before modern single-lens reflex cameras with instant-return mirrors, its great virtue was a top-mounted focusing screen that allowed the photographer to focus and frame his image up to and including the moment of exposure. And in Nurnberg's words, it enabled the photographer 'to check whether the camera vision conforms to the picture the photographer has pre-visualised in his mind'.⁸

Nurnberg's images of industrial life featuring people in their working environment are especially evocative. What has been cited as 'the humanitarian portraiture of Helmar Lerski'⁹ was a key influence on Nurnberg, but other factors were also important. Nurnberg's deep

interest in the works of humankind focused on the close relationship between man and machines. His wartime service had brought him into contact with a wide cross section of humanity. As a consequence, he had acquired enormous respect for the dignity and integrity of the working man as well as his craft and skill. This respect shines through much of his work. A special interest was the human hand, which fascinated him. In 1962 he wrote: 'We all know that hands have always challenged the imagination, not only because they divulge character and human nature undisguised, but because they have throughout the ages held a symbolic significance.' And at the conclusion of the same article 'even in a world of automation and mechanical handling the hand of man is still operative, and remains not only just a symbol but a living expression of human genius and adaptability'.¹⁰ Symbolism of a different sort is evident in a series of photographs of a priest's hands at prayer, reproduced in a short book published in 1951.¹¹

A key feature of Nurnberg's work is the dramatic lighting of his subjects and this is undoubtedly due to his German training. Nurnberg brought cinematographic lighting techniques to his advertising work in London and later adapted this to his work in industry. He often used large numbers of powerful angled spotlights and massive flash equipment. Light, of course, produces shadow, a phenomenon that intrigued Nurnberg, who saw light and shadow as psychological forces. 'To me as a photographer, an analytical investigation into the phenomenon [sic] of shadow has always held particular interest. I am convinced that if you could only understand the problems – psychological and technical – better monochrome photography would offer many new possibilities to the imaginative photographer.'¹² In the 1940s Nurnberg produced two authoritative books on lighting, *Lighting for Photography* and *Lighting for Portraiture*. Both became standard texts in Britain and abroad with reprints still being issued in the 1970s.¹³ Nurnberg used his lighting cleverly to convey mood and atmosphere, another subject to which he applied his fertile mind. He firmly believed that mood and atmosphere were 'individual, subjective and subconscious'. His overriding maxim for students was that mood and atmosphere had to be experienced before they could be expressed. For photographers, there was 'no short cut to creative ability, not even by way of clever analysis and laboured imitations [...] you must find within your own personality the right way of portraying mood and atmosphere'.¹⁴

The products of Nurnberg's career are hundreds of views of factories, workshops, laboratories and equipment. Many of the buildings and artefacts depicted have been destroyed or lost, and it must be doubted whether any written description can properly convey the information shown in visual records. Particularly interesting are the views of synthetic-fibre production taken at ICI's giant new chemical plants and the manufacture of cathode-ray tubes at Mullards.

Figure 5 Diesel train chassis being lowered onto wheels, Dick Kerr Works, Preston, 1956. Britain's railways had been grossly overworked during the war and by 1945 were close to breakdown. Following postwar nationalisation, a massive modernisation programme was undertaken with steam locomotives being replaced by diesel and electric types. (Walter Nurnberg collection/ National Museum of Photography, Film & Television/Science & Society Picture Library)



At the time, chemicals and electronics were seen as vital for Britain's industrial future and these images give insights into contemporary equipment and working practices. Also of special interest are views demonstrating the scale of efforts made to modernise Britain's railways (Figure 5) and many images showing aspects of the aircraft (Figure 6), motor (Figure 7), steel (Figure 8) and electrical industries. Much of Nurnberg's work was commissioned for marketing purposes and his style was perfectly suited to presenting his subjects in a dramatic and exciting context. Yet these views undoubtedly contain the 'unwitting testimony' so valuable to historians.

In a 1978 interview Nurnberg claimed he was working from a Bauhaus philosophy 'never to superimpose one's personality, to stand back from an object and to analyse clearly, visually and in one's mind'.¹⁵ The first premise must surely be challenged, for Nurnberg's personality, his humanity and his intellect is evident in so much of his work. He makes use of symbolism and presents many of his human subjects in a heroic light. So what is the overall value of his work as a historical source? He meets Lady Eastlake's criteria, for there can be



Figure 6 Apprentice and instructor inspecting the undercarriage of a Canberra bomber, English Electric, 1956. There were high hopes for the British aircraft industry in the postwar years, and particularly for the new jet engines. The Canberra, a jet-engined medium bomber introduced in 1949, was one of the industry's most successful products and had a service life of nearly 50 years. (Walter Nurnberg collection/ National Museum of Photography, Film & Television/Science & Society Picture Library)

no doubt that his photographs have a basis in fact. However, he falls foul of Salisbury's beliefs, for most of his images are imaginative and he approached the picture-taking part of his work with preconceived views that followed careful planning. But to what extent has his camera lied? Anyone who knew Nurnberg would vehemently reject the possibility that he would be party to a lie, but he was a complex man. Perhaps he best summed up his philosophy in 1951: 'Photography is the herald of Reality – a Reality to be found not only in the material aspect of life, but also in our spiritual experience. I, as a photographer, have thus to do two things: to make others see what I see; and make those who understand my language share my emotional and intellectual attitude to life.'¹⁶ There are few absolute truths in written history, only the historian's version of events. Nurnberg's 'Reality' is his version. It presents a personal view of British industry in the 1940s and 1950s that includes much of the mood and atmosphere of the times. Accepting that it is a personal view surely does not make it any less valuable as a historical source.

Figure 7 Working with a pneumatic tool in the car industry, Reynolds Engineering, 1951. Government money to meet wartime requirements allowed the motor industry to completely modernise its plants and equipment. The industry thrived in the immediate aftermath of war, but only in the context of protected markets. By 1956, West Germany had overtaken Britain as the world's leading car exporter. (Walter Nurnberg collection/National Museum of Photography, Film & Television/ Science & Society Picture Library)



Notes and references

- 1 *Quarterly Review*, 101 (1857), p465
- 2 Roberts, A, *Salisbury, Victorian Titan* (Phoenix, 2000), p113
- 3 The introduction of panchromatic film in the mid-1920s led to the greater use of incandescent tungsten lamps and improved carbon arc illuminants in the film industry. See Thomas, D B and Ward, J P, 'Cinematography', in Williams, T I (ed.), *A History of Technology*, Vol. VII, Part 2, (Clarendon Press, 1978), Chapter 53, p1302.
- 4 Hennessy, P, *Never Again* (Jonathan Cape, 1992)
- 5 Nahum, A, 'Walter Nurnberg', *Science Museum Review* (1989), p10
- 6 Nurnberg, W, 'The Rolleiflex in industrial photography', a typewritten draft or note for an article or lecture. Several such items, dating from the 1950s and early 1960s, accompanied the donation of photographs.
- 7 Nurnberg, W, *A View of Industry* (Dawson & Goodall, 1962), pp21-2
- 8 Nurnberg, W, 'The Rolleiflex in industrial photography', draft or note
- 9 Mellor, D, 'Walter Nurnberg', a historical outline for a Kodak exhibition in association with the Science Museum, 1979



Figure 8 Steelworker with molten iron, Workington Iron and Steel Company, 1952. The steel industry had been worked to its limit in wartime. It was destined for nationalisation but never quite came under government control. This was an old plant dating from 1856, which might explain the dangerous working practice that exposed an employee to the intense heat of molten iron without protective clothing. (Walter Nurnberg collection/ National Museum of Photography, Film & Television/Science & Society Picture Library)

10 Nurnberg, W, note 7, p27

11 Nurnberg, W, *Hands at Mass* (Chapman and Hall, 1951)

12 Nurnberg, W, 'Shadows', draft or note

13 Nurnberg, W, *Lighting for Photography* (Focal Press, 1940); Nurnberg, W, *Lighting for Portraiture* (Focal Press, 1948)

14 Nurnberg, W, 'Mood and atmosphere', draft or note

15 Mellor, D, note 9

16 Nurnberg, W, note 11, p5